

**IN THE UNITED STATES DISTRICT COURT  
FOR THE EASTERN DISTRICT OF TEXAS  
SHERMAN DIVISION**

VIRIDITY ENERGY SOLUTIONS, INC.,

*Plaintiff,*

VS.

LONE STAR DEMAND RESPONSE,  
LLC,

*Defendant.*

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CIVIL ACTION NO. 4:21-CV-419-SDJ

**AFFIDAVIT OF MARK MISCIAGNA IN SUPPORT OF  
PLAINTIFF'S SUPPLEMENTAL BRIEF**

STATE OF TEXAS

COUNTY OF DALLAS

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BEFORE ME, the undersigned Notary Public on this day personally appeared Mark Misciagna, who being by me duly sworn, stated as follows:

1. My name is Mark Misciagna. I am over 21 years of age, of sound mind, and capable of making this affidavit. The facts stated in this affidavit are within my personal knowledge and are true and correct.

2. I am a Financial Analyst for Plaintiff Viridity Energy Solutions, Inc. ("Viridity" or "Plaintiff") in this case.

3. Prior to assuming my current position, I was employed by Viridity as a Staff Accountant.

**AFFIDAVIT OF MARK MISCIAGNA IN SUPPORT OF  
PLAINTIFF'S SUPPLEMENTAL BRIEF**

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4. In my role as Financial Analyst for Viridity, I have personal knowledge of Viridity's accounting records and calculations of amounts owed to Viridity by Lone Star Demand Response, LLC ("Lone Star").

5. Prior to executing this Declaration, I reviewed portions of documents prepared and maintained by Viridity in the ordinary course of its business with Lone Star, as well as pleadings filed by Viridity in the above-captioned matter.

6. The relationship between Viridity and Lone Star is governed by the Parties' Energy Management Agreement (the "EMA"), effective April 26, 2017, and subsequent amendments thereto.

7. Pursuant to the EMA, Viridity agreed to act as an intermediary between The Electricity Reliability Council of Texas ("ERCOT") and Lone Star's portfolio of participating customers by providing Qualified Scheduling Entity ("QSE") dispatch services notifying Lone Star's customers of the need to curtail electricity usage in response to market signals from ERCOT.

8. As a general point, ERCOT settles all activity at the QSE level. Statements provided to QSE's only show the total or sum amounts of charges and credits across all markets in which the QSE participates. It is the responsibility of the QSE to allocate those charges and credits among its resources and customers. For QSEs like Viridity with the task of allocating charges and credits to specific resources, ERCOT publishes the data behind its settlement calculations, which in-turn allows QSEs to validate ERCOT's settlement calculations and allocate the charges and credits to the corresponding resources.

9. Under Section 5.1 of the EMA, Viridity agreed to provide Lone Star and its portfolio of customers with energy management services in return for an Energy Management Fee



based on the amount of capacity in Megawatts (“MW”) that Lone Star’s portfolio was able to commit to ERCOT’s Demand Response program.

10. In providing these energy management services, Viridity not only alerted Lone Star’s participating customers of the need to curtail energy usage, but also monitored Lone Star’s compliance in causing its customers to respond to ERCOT market signals and remitted payments from ERCOT to Lone Star based on the MWs of electricity provided by Lone Star’s participating customers during Demand Response program events.

11. Under Section 3.4 of the EMA, Viridity expressly agreed to “defend, indemnify, and hold harmless [Viridity] and its Affiliates from and against any and all Claims that may arise, and any liability, claim, penalty or other damages that may be incurred by [Viridity] as a result of [Lone Star’s] failure to cause the [participating customers] to respond to a Market Award.”

12. For each hour of the February 15, 2021, operating day (the “Operating Day”), Viridity scheduled 90MW of ancillary services for Lone Star’s resources. This meant that Lone Star was obligated to deliver 90MW of available capacity to the market via its participating customers every hour during the Operating Day.

13. In the event that Lone Star failed to deliver the specific MW of capacity scheduled by Viridity during any given 24-hour period, an Ancillary Service Imbalance would result, with ERCOT assessing Ancillary Service Imbalance Charges to Viridity, and Viridity passing along a share of the Ancillary Service Imbalance Charges which are attributable to Lone Star’s participating customers.

14. On the Operating Day, Lone Star failed to meet its 90MW capacity obligations for a substantial portion of the 24-hour period. As indicated in the spreadsheet “Lone Star Final Settlement (Feb. 15, 2021),” attached hereto as Exhibit A, many Lone Star participating



customers—each referred to as a “Resource” within Lone Star’s “Group”—failed to deliver any capacity during the 96 15-minute intervals comprising the 24-hour period during the Operating day. Specifically, by scrolling down to the “Capacity” table from rows 101 to 192 in Exhibit A, you can see that the vast majority of Lone Star’s Resources failed to deliver any capacity during any 15-minute interval throughout the Operating Day, as demonstrated by a “0.000” within any given cell within the Capacity table.

15. While Exhibit A was created by Viridity, it incorporates market settlement data which is published by ERCOT in XML format; while these files contain a massive amount of data regarding the capacity of any individual Resource during any given interval during any particular 24-hour period, they allow QSEs like Viridity to precisely determine the capacity delivered by specific Resources for purposes of allocating credits or debits to that Resource’s Group.

16. Because there was a substantial deficit between the capacity that Viridity scheduled on the Operating Day and the amount of capacity that was actually delivered by Resources controlled by Lone Star and other unrelated entities (with the latter entities referred to as “Other VESI” in Exhibit A), ERCOT assessed \$4,321,681.52 in “Total Imbalance Charges” for the Operating Day. The Total Imbalance Charges were determined by multiplying the total deficit in capacity across all Resources by the Real Time “Price Adders” calculated by ERCOT as the market value of capacity during any given 15-minute interval. ERCOT will occasionally revise specific variables used in the calculation of the market value of capacity in the weeks or months following a given operating day. In this case, ERCOT resettled the market value of capacity for the Operating Day on three separate occasions between February and April of 2021.

17. The Total Imbalance Charges assessed to Viridity by ERCOT are evidenced, in part, by a number of billing statements issued to Viridity by ERCOT, with the total amount shifting



over time as ERCOT modified its initial Real-Time Market Statements to incorporate updated information regarding capacity and pricing during any given interval on any given date. As indicated by the Real Time Market Statement for the Operating Day, attached hereto as Exhibit B, ERCOT initially assessed \$4,592,956.70 in charges to Viridity for “Real-Time Ancillary Services” due to imbalance and reliability charges during that 24-hour period.<sup>1</sup>

18. To respond to the Court’s question about the difference between the “Billable Amount” of \$4,592,956.70 and the “Billed Amount” of \$4,555,460.39 in Exhibit B, the “Billed Amount” of \$4,555,460.39 is net of Real-Time Ancillary Services Charges on line 1 of Exhibit B (\$4,592,956.70) minus Real-Time Energy Credits on line 6 of Exhibit B (\$37,496.31). The Real-Time Energy Credits were related to other Viridity assets—assets unrelated to Lone Star’s Real-Time Ancillary Services—and therefore the \$37,496.31 reduction in the Billed Amount in Exhibit B does not indicate a reduction in the imbalance charges incurred for Real-Time Ancillary Services.

19. As indicated by the attached ERCOT Settlement Invoice, dated February 23, 2021, Viridity owed a net amount of \$1,348,896.34, including the net \$4,555,460.39 “Billed Amount” from Exhibit B, as well as charges and credits for other operating days.<sup>2</sup> Just as the “Billed Amount” in Exhibit B did not reflect the full amount of imbalance charges assessed for the Operating Day, the “Net Amount Owed” in Exhibit C reflects additional credits to Viridity which were unrelated to the Total Imbalance Charges for the Operating day.

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<sup>1</sup> A true and correct copy of the 2/15/21 Real-Time Market Statement is attached, hereto, as “Exhibit B.”

<sup>2</sup> A true and correct copy of the 2/23/2021 ERCOT Settlement Invoice is attached, hereto, as “Exhibit C.”



20. Viridity paid all outstanding amounts owed to ERCOT on February 25, 2021.<sup>3</sup> In Exhibit C, the “Net Amount Owed” (\$1,348,896,34) is the net amount between the credit total of the Day Ahead Market Statements for Operating Days February 19-21 (\$3,450,625.80) and the total charges of the Real Time Market Initial Statements for the operating days of February 15-18 (\$4,799,522.14). The Day Ahead Market Statement credits represent revenue related to other Viridity assets which partially offset the total charges for Real-Time Initial Statements, but which were ultimately unrelated to the imbalance charges that Viridity incurred from ERCOT due to the failure of Lone Star and other entities to meet their capacity obligations on the Operating Day.

21. On April 12, 2021, ERCOT *decreased* the initial imbalance charges of \$4,592,956.70 for the Operating Day by \$313,214.80, effectively resettling the then-current amount of imbalance charges for the Operating day to \$4,279,741.90.

22. ERCOT subsequently *increased* the total charges in the Real Time Market Resettlement for the Operating Day by \$41,952.14 in a “Resettlement Statement,” as reflected in a Settlement Invoice dated April 20, 2021.<sup>4</sup> Of the \$41,952.14 listed in that line item, \$41,939.62 is related to the Ancillary Service Imbalance Charges, with the remaining \$12.52 related to non-Lone Star assets. By adding \$41,939.62 to the remaining imbalance charge of \$4,279,741.90 from the April 12<sup>th</sup> resettlement, ERCOT determined the Total Imbalance Charges of \$4,321,681.52 (which are reflected in line 399 of Exhibit A).

23. As with the earlier ERCOT invoice, Viridity timely paid the Net Amount Owed in Exhibit E.

<sup>3</sup> A true and correct copy of Viridity’s Checking Account Statement evidencing payment to ERCOT is attached, hereto, as “Exhibit D.”

<sup>4</sup> A true and correct copy of the 4/21/2021 ERCOT Settlement Invoice is attached, hereto, as “Exhibit E.”



24. The Total Imbalance Charges are also evidenced by market settlement data for the Operating Day that ERCOT published in XML format. As described in more detail below, Viridity used this XML data received from ERCOT to calculate the Total Imbalance Charges in Exhibit A (\$4,321,681.52), as well as the subset of Total Imbalance Charges attributable to Lone Star's Resources for the Operating Day (\$3,382,948.46).

25. By compiling the Total Imbalance Charges of \$4,321,681.52 based on charges that ERCOT invoiced to Viridity for the Operating Day (as summarized in line 399 of Exhibit A) and cross-referencing amounts of MW capacity attributable to Lone Star's Resources within any given 15-minute interval during the Operating Day, Viridity was able to determine that \$3,382,948.46 of the charges were allocable solely to Resources within Lone Star's Group based on the deficit between the MW capacity Lone Star was obligated to deliver on the Operating Day and the MW capacity that those Lone Star's Resources actually delivered.<sup>5</sup> In sum, Viridity calculated the amount of Total Imbalance Charges for which Lone Star was solely responsible by multiplying the Total Imbalance Charges by the share of the cumulative deficit in MWs attributable to LSDR's participating customers during each 15-minute monitoring interval on the Operating Day (2/15/2021).

26. The remaining amounts of Total Imbalance Charges are attributable to two unrelated entities (the "Other VESI") that were responsible for Resources outside of Lone Star's Group.<sup>6</sup> In other words, the MW capacity delivered by those other entities had no bearing on the amount of imbalance charges for which Lone Star is solely responsible; they were simply other entities for whom Viridity also provided QSE services on the Operating Day.

<sup>5</sup> See Exhibit A at lines 395-399.

<sup>6</sup> See Exhibit A, at lines 395-396.



27. In preparation for this update to my Affidavit, and in order to address the Court's stated concerns regarding the precise amount of Total Imbalance Charges attributable to Lone Star, I reviewed ERCOT's published market settlement data for the Operating Day and corrected some small discrepancies in the spreadsheets that Viridity previously used to calculate its damages. In Viridity's original calculation of the Total Imbalance Charges, some of the extract data was rounded improperly when Viridity attempted to extract ERCOT's XML-based market settlement data and convert that XML-based data into an Excel spreadsheet format. These minute rounding errors were responsible for the slight shift in the Total Imbalance Charges attributable to Lone Star that Viridity alleged in its Original Complaint (\$3,383,936.97) and its Request for Clerk's Entry of Default Judgment Against Lone Star Demand Response (\$3,383,022.52).<sup>7</sup>

28. In the subsequent settlements incorporated into Exhibit A of this affidavit, those rounding errors have been corrected. As a result, the \$3,382,948.46 in Total Imbalance Charges attributable to Lone Star's Resources in Exhibit A is the correct and final amount that Lone Star owes to Viridity for the Operating Day. Exhibit A is a true and correct summary of both the Total Imbalance Charges for the Operating Day, as well as the specific amounts of imbalance charges attributable to Lone Star.

29. While \$3,382,948.46 is the correct amount of Lone Star's share of Total Imbalance Charges, Viridity subsequently credited Lone Star for its share of "Net Credit Settlements" for all transactions between Viridity and Lone between January and August of 2021, with the exception of Lone Star's share of the Total Imbalance Charges.<sup>8</sup> Applying the credits for January, February, and March, as described in the Original Complaint, Viridity reduced its claimed contract damages

<sup>7</sup> Compare Dkt. #1 at 6 with Dkt. #9-2 at 50.

<sup>8</sup> See Dkt. #9-2 at 50.





against Lone Star by \$269,666.14, \$101,472.56, and \$3,720.02 respectively.<sup>9</sup> By applying those same credits from Viridity's Original Complaint to the corrected amount of Lone Star's share of Total Imbalance Charges (\$3,382,948.46), Viridity's claimed contract damages are reduced to \$3,008,089.74.

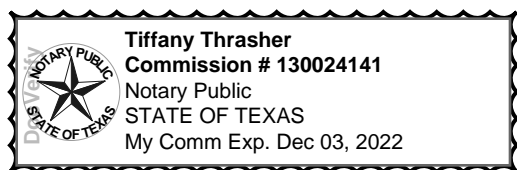
30. Thus, by applying the amounts of the January, February, and March Net Credit Settlements included in Viridity's Original Complaint to the correct and final amount of Total Imbalance Charges solely attributable to Lone Star (\$3,382,948.46), Viridity calculates its present contract damages as \$3,008,089.74.

31. I declare under penalty of perjury that the foregoing is true and correct. Executed on June 29, 2022.

*Martin Mark Misciagna*

Mark Misciagna

SWORN TO AND SUBSCRIBED before me on this the 29th day of June 2022.



Notarial act performed by audio-visual communication

*Tiffany Thrasher*

Notary Public in and for the State of Texas

My commission expires: 12/3/2022

<sup>9</sup> See Dkt. #1 at 6; Dkt. #1-5 at 60.



# Exhibit A

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# Exhibit A

[Excel File  
Produced in  
Native Format]

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# Exhibit B

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## REAL-TIME MARKET STATEMENT

Participant Name **VIRIDITY ENERGY SOLUTIONS INC (QSE)**  
 Participant ID **8304646602000**

**SETTLEMENT SUMMARY**

Statement ID **RTM\_INITIAL\_STATEMENT\_20210215\_8304646602000\_I1**

Operating Day **02/15/2021**

**TOTALS**

Status	Version	Billed Amount	
RTM_INITIAL	1	\$4,555,460.39	
		<b>Operating Day Total</b>	<b>\$4,555,460.39</b>

► REAL-TIME ANCILLARY SERVICES	Billable Amt: \$4,592,956.70
► BLACK START CAPACITY	NO ACTIVITY
► EMERGENCY OPERATIONS	NO ACTIVITY
► GENERATION RESOURCE BASE-POINT DEVIATION	Billable Amt: \$0.00
► REAL-TIME CONGESTION REVENUE RIGHTS	NO ACTIVITY
► REAL-TIME ENERGY	Billable Amt: (\$37,496.31)
► REAL-TIME REVENUE NEUTRALITY ALLOCATION	NO ACTIVITY
► RELIABILITY MUST-RUN	NO ACTIVITY
► RELIABILITY UNIT COMMITMENT	NO ACTIVITY
► VOLTAGE SUPPORT	NO ACTIVITY
► ADMINISTRATIVE FEES	NO ACTIVITY

**TOTALS**

Status	Version	Billed Amount	
RTM_INITIAL	1	\$4,555,460.39	
		<b>Operating Day Total</b>	<b>\$4,555,460.39</b>



# Exhibit C

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## SETTLEMENT INVOICE

Invoice No: **STL1083387**  
 Invoice Date: **02/23/2021**

Payments are due to ERCOT by 5:00 P.M. **02/25/2021**  
 Payments will be made to Invoice Recipients by 5:00 P.M. **02/26/2021**

**AMOUNT OWED (DUE): \$1,348,896.34**

## INVOICE RECIPIENT

Name: **VIRIDITY ENERGY SOLUTIONS INC (QSE)**  
 ID: **8304646602000**

CATEGORY	STATEMENT ID	OPERATING DAY	STATEMENT AMOUNT	SUBTOTAL
DAM Statements	DAM_STATEMENT_20210219_8304646602000_D1	02/19/2021	(\$1,204,775.54)	
	DAM_STATEMENT_20210220_8304646602000_D1	02/20/2021	(\$2,034,302.90)	
	DAM_STATEMENT_20210221_8304646602000_D1	02/21/2021	(\$211,547.36)	
DAM Statements Subtotal				(\$3,450,625.80)
Initial Statements	RTM_INITIAL_STATEMENT_20210215_8304646602000_I1	02/15/2021	\$4,555,460.39	
	RTM_INITIAL_STATEMENT_20210216_8304646602000_I1	02/16/2021	\$235,817.52	
	RTM_INITIAL_STATEMENT_20210217_8304646602000_I1	02/17/2021	\$4,148.10	
	RTM_INITIAL_STATEMENT_20210218_8304646602000_I1	02/18/2021	\$4,096.13	
Initial Statements Subtotal				\$4,799,522.14
Final Statements	RTM_FINAL_STATEMENT_20201227_8304646602000_F2	12/27/2020	\$0.00	
	RTM_FINAL_STATEMENT_20201228_8304646602000_F2	12/28/2020	\$0.00	
	RTM_FINAL_STATEMENT_20201229_8304646602000_F2	12/29/2020	\$0.00	
	RTM_FINAL_STATEMENT_20201230_8304646602000_F2	12/30/2020	\$0.00	
Final Statements Subtotal				\$0.00
True-Up Statements	RTM_TRUEUP_STATEMENT_20200824_8304646602000_T3	08/24/2020	\$0.00	
	RTM_TRUEUP_STATEMENT_20200825_8304646602000_T3	08/25/2020	\$0.00	
	RTM_TRUEUP_STATEMENT_20200826_8304646602000_T3	08/26/2020	\$0.00	
	RTM_TRUEUP_STATEMENT_20200827_8304646602000_T3	08/27/2020	\$0.00	
True-Up Statements Subtotal				\$0.00
NET AMOUNT OWED (DUE)				\$1,348,896.34

## REMITTANCE INFORMATION

	<b>ERCOT Account</b>	<b>Recipient Account</b>
Account Name	ELECTRIC RELIABILITY COUNCIL OF TEXAS INC	REVENUE SETTLEMENT ACCOUNT
Bank Name	JPMORGAN CHASE BANK	BANK OF AMERICA
ABA Routing Number	021000021	122400724
Account Number	09922895452	501014725773

## Overdue Terms

In the event ERCOT does not receive your payment by close of bank business on the "Payments are due to ERCOT" date your credit standing with ERCOT may be affected and subject to review.



# Exhibit D

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## Your checking account

VIRIDITY ENERGY SOLUTIONS INC | Account # [REDACTED] 5757 | February 1, 2021 to February 28, 2021

### Withdrawals and other debits - continued

Date	Transaction description	Customer reference	Bank reference	Amount
02/25/21	WIRE TYPE:WIRE OUT DATE:210225 TIME:1650 ET TRN:2021022500511706 SERVICE REF:573787 BNF:ELECTRIC RELIABILITY COUNC ID:09922895452 BNF BK:JPMORGAN CHASE BANK, N. ID:0002 PMT DET:212 PG4509NJR2Q28INV: STL1083387		903702250511706	-1,348,896.34

### Checks

Date	Check #	Bank reference	Amount	Date	Check #	Bank reference	Amount
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# Exhibit E

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## SETTLEMENT INVOICE

Invoice No: **STL1111657**  
 Invoice Date: **04/20/2021**

Payments are due to ERCOT by 5:00 P.M. **04/22/2021**  
 Payments will be made to Invoice Recipients by 5:00 P.M. **04/23/2021**

**AMOUNT OWED (DUE): \$17,096.13**

## INVOICE RECIPIENT

Name: **VIRIDITY ENERGY SOLUTIONS INC (QSE)**  
 ID: **8304646602000**

CATEGORY	STATEMENT ID	OPERATING DAY	STATEMENT AMOUNT	SUBTOTAL
<b>DAM Statements</b>	DAM_STATEMENT_20210416_8304646602000_D1	04/16/2021	(\$4,353.70)	
	DAM_STATEMENT_20210417_8304646602000_D1	04/17/2021	(\$9,051.54)	
	DAM_STATEMENT_20210418_8304646602000_D1	04/18/2021	(\$11,534.71)	
<b>DAM Statements Subtotal</b>				<b>(\$24,939.95)</b>
<b>Initial Statements</b>	RTM_INITIAL_STATEMENT_20210415_8304646602000_I1	04/15/2021	\$83.94	
<b>Initial Statements Subtotal</b>				<b>\$83.94</b>
<b>Final Statements</b>	RTM_FINAL_STATEMENT_20210224_8304646602000_F2	02/24/2021	\$0.00	
<b>Final Statements Subtotal</b>				<b>\$0.00</b>
<b>True-Up Statements</b>	RTM_TRUEUP_STATEMENT_20201022_8304646602000_T3	10/22/2020	\$0.00	
<b>True-Up Statements Subtotal</b>				<b>\$0.00</b>
<b>RTM Resettlement Statements</b>	RTM_RESETTLEMENT_STATEMENT_20210215_8304646602000_R4	02/15/2021	\$41,952.14	
<b>RTM Resettlement Statements Subtotal</b>				<b>\$41,952.14</b>
<b>NET AMOUNT OWED (DUE)</b>				<b>\$17,096.13</b>

## REMITTANCE INFORMATION

	<b>ERCOT Account</b>	<b>Recipient Account</b>
Account Name	ELECTRIC RELIABILITY COUNCIL OF TEXAS INC	REVENUE SETTLEMENT ACCOUNT
Bank Name	JPMORGAN CHASE BANK	BANK OF AMERICA
ABA Routing Number	021000021	122400724
Account Number	09922895452	501014725773

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